Return to Use Initiative
2006 Demonstration Project

Rose Township Dump: Rose Township, Michigan

THE SITE: The 110-acre Rose Township Dump site was used for the unauthorized disposal of paint sludges and volatile organic compounds (VOCs) from 1966 until 1968, and intermittently in 1970. During this time, drummed wastes were transported from Detroit area industries and disposed at the site. In 1979 and 1980, the Michigan Department of Environmental Quality (MDEQ) removed 5,000 55-gallon drums of wastes from the site. In 1985 and 1986, EPA fenced portions of the site and removed an additional 31 drums of wastes plus about 20 cubic yards of soil contaminated with polychlorinated biphenyls (PCBs). EPA selected a remedy in 1987, and reached a cleanup agreement with 12 Detroit area companies in 1989. Cleanup activities included treating PCB-bearing surface soils with a mobile incinerator at the site, constructing and operating an interim ground water pump and treat system to contain the ground water contaminant plume during incineration, and installing a soil vapor extraction unit. Cleanup activities concluded in February 1996.

Barriers: Uncertainty about whether the proposed future use option would be available under the remedy

Solution: Maintaining an active ongoing dialogue with the stakeholders and assessing appropriate reuse options

THE OPPORTUNITY: Daimler Chrysler, one of the primary responsible parties at the site, is participating in a new agreement between Biodiesel Industries Inc. and NextEnergy, a non-profit corporation that seeks to advance Michigan's alternative energy technology industry. The Cooperative Research and Development Agreement will address the development and technological innovation of biodiesel fuels. Daimler Chrysler is a national leader among automobile manufacturers in using and promoting renewable biodiesel fuel sources. The company has committed to finding and developing sites for growing crops for biodiesel research and production. Recently, Daimler Chrysler approached EPA about using 80 acres of the Rose Township Dump site to grow genetically engineered soybeans for biodiesel production.

THE BARRIERS: Daimler Chrysler had to negotiate an agreement with the site owner, the State of Michigan, in order to use the property for soybean farming. Any reuse option must not impair the site's remedy.

THE SOLUTION: EPA facilitated discussions among various stakeholders to assess reuse options that ensured the site's remedy would remain protective of human health and the environment.

Before: Underutilized 110-acre former PCB site in a rural area

After: Agricultural use for an environmentally friendly purpose

THE SITE NOW: Once the regulatory agencies determined the steps necessary to ensure that the remedy would be protective for future agricultural use, stakeholders began planning for future soybean production at the site. In 2006, through a partnership with Daimler Chrysler, the State of Michigan, EPA and NextEnergy, a Michigan State University researcher began an investigation into the potential for certain crops grown at the site to be refined into renewable fuels. The first crops of soybeans, corn, sunflower, canola and switchgrass were harvested using approximately two acres of the site in fall 2006. The fuels are being tested at the National Biofuels Energy Laboratory located at NextEnergy's headquarters in Detroit. The

results of the investigation at Rose Township will provide an indication of the potential for this type of reuse at other Superfund and brownfield sites. "This site may seem like a drop in the bucket, but we're looking at the possibility of taking land that isn't productive and using it to both learn and produce," said the researcher leading the investigation, Professor Kurt Thelen. "The research we're conducting in Rose Township could have major implications for both rural and urban brownfield sites nationwide."

The other stakeholders involved in the partnership also maintain a positive outlook. As Deb Morrissett, Vice President of Regulatory Affairs at the Chrysler Group states, "bio-fuels represent a huge opportunity to reduce our nation's consumption of petroleum. The Rose Township Project could give us a homegrown solution to our energy, environmental and economic challenges, and a chance to return these contaminated lands to use."[1] NextEnergy CEO Jim Croce believes that "the research will further position Michigan as a leader in the national effort to reduce our dependence on oil and reduce the impact of transportation on our environment." The third five-year review report for the site was signed on June 21, 2007.

FOR MORE INFORMATION, CONTACT: Tom Bloom, Region 5 Superfund Redevelopment Coordinator, at (312) 886-1967 or bloom.thomas@epa.gov.

1. "DaimlerChrysler, Michigan State Researchers Turn Brownfield Site into Biofuels Research Lab." *Biofuels Journal* October 19, 2006, http://www.biofuelsjournal.com/articles/DaimlerChrysler__Michigan_State_Researchers_Turn_Brownfield_Site_into_Biofuels_Research_Lab_____10_19_2006-38342.html.